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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 173

[Docket No. PHMSA-07-29364 (HM-231A)]

RIN 2137-AE32

Hazardous Materials; Packages Intended for Transport by Aircraft

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final Rule.

SUMMARY: PHMSA is amending the Hazardous Materials Regulations to require closures of inner packagings containing liquids within a combination packaging intended for transportation by aircraft to be secured by a secondary means or, where a secondary closure cannot be applied or it is impracticable to apply, permit the use of a leakproof liner. These amendments are consistent with the 2011-2012 edition of the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions).

DATES: Effective Date: This rule is effective July 1, 2012.

Voluntary Compliance Date: Voluntary compliance with all amendments are authorized (INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER).

FOR FURTHER INFORMATION CONTACT: Michael G. Stevens, Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., Washington, DC 20590-0001, telephone (202) 366-8553, or Janet McLaughlin, Office of Security and Hazardous Materials Safety, Federal

Aviation Administration, U.S. Department of Transportation, 490 L'Enfant Plaza, S.W., Suite 8100, Washington, DC 20024, telephone (202) 385-4897.

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In this final rule, PHMSA is adopting the requirement that, when transported by air, the closure of an inner packaging containing a liquid hazardous material must be secured by a secondary means of closure. A Packing Group I liquid must be further packaged in a rigid leakproof receptacle or rigid intermediate packaging containing sufficient absorbent material to absorb the entire contents of the inner packaging, before being placed in its outer package. For liquids assigned to Packing Groups II or III, however, a leakproof liner may be used where a secondary closure cannot be applied or it is impracticable to apply. These amendments are consistent with the reformatted packing instructions in the 2011-2012 edition of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions). Because most shippers already prepare shipments in accordance with the ICAO Technical Instructions, as a result, no new costs or benefits are anticipated.

During the rulemaking process, PHMSA, in consultation with the FAA, considered four possible alternatives to strengthen packaging requirements for air shipments of liquid hazardous materials:

Alternative 1: Harmonize with the 2011-2012 edition of the ICAO Technical Instructions by requiring that friction and screw type closures (i.e., all closure types) of inner

packagings intended to contain liquids as part of a combination packaging be secured by a secondary means of closure. Under this alternative, we would adopt packaging amendments included in the 2011-2012 edition of the ICAO Technical Instructions that require friction and screw type closures of inner packagings intended to contain liquids as part of a combination packaging to be secured by a secondary means of closure. For liquids assigned to Packing Groups II or III, a leakproof liner could be used to satisfy the secondary closure requirement where it could not be applied or would be impracticable to apply. For liquids of Packing Group I, a secondary means of closure, absorbent material and a leakproof liner would be required. Alternative 1 would address most of the safety issues associated with the transportation of liquid hazardous materials by preventing releases or containing releases that do occur within the packaging. It does not address problems associated with the current pressure differential capability standard.

Alternative 2: Require enhanced pressure differential capability requirements on all inner packagings intended to contain liquids as part of a combination packaging. Current rules require that all packages transported by air and for which retention of liquids is a basic function must be capable of withstanding, without leakage, a certain pressure differential, which is usually 95 kilopascals (kPa) (§173.27[c]). This integrity standard applies to both specification and non-specification packaging. Under this alternative, PHMSA would require packaging manufacturers to conduct testing to confirm that a combination packaging intended for the air transportation of liquid hazardous materials is capable of withstanding the pressures encountered on board aircraft and to maintain a documented record of the test results.

Alternative 3: Adopt the provisions in both Alternatives 1 and 2. Under this alternative,

PHMSA would adopt the new and revised regulatory provisions summarized in the discussion of Alternatives 1 and 2 above.

Alternative 4: Do nothing. Under this alternative, the current domestic regulatory scheme applicable to air shipment of hazardous liquids would continue in place and the U.S. standards would not be harmonized with the international community. Because most countries and international air carrier organizations have already adopted the changes in this rulemaking, a do-nothing approach could result in complications in the movement of these materials and the U.S. will not meet its obligations outlined in the Convention on International Civil Aviation – also known as the Chicago Convention. Future inconsistencies with international transport standards may result in foreign authorities refusing to accept hazardous material shipments prepared in accordance with the HMR. To successfully participate in international markets, U.S. companies would be required to conform to dual regulations. Inconsistent domestic and international regulations can also have an adverse safety impact by making it more difficult for shippers and carriers to understand and comply with all applicable requirements.

II. Background.

A. Current Requirements in the HMR

Currently under the HMR, stoppers, corks, or other such friction-type closures must be held securely, tightly, and effectively in place by positive means. See § 173.27(d). However, a screw-type closure on any packaging must only be secured to prevent the closure from loosening due to “vibration or substantial change in temperature.” We have stated in letters of clarification that a secured closure should incorporate a secondary means of maintaining a seal, such as a shrink-wrap band or heat-sealed liner. Additionally, laboratory studies conducted on behalf of

PHMSA and FAA concluded that a simple application of tape on a screw-type closure prevented “back-off” under even extreme conditions.

B. Summary of Proposals in NPRM.

1. Incorporation of Certain ICAO Technical Instructions Reformatted Packing Provisions.

In the May 14, 2010 [75 FR 27273] NPRM, we proposed to amend the HMR by adopting certain packaging provisions that were inclusive of what was adopted in the 2011-2012 ICAO Technical Instructions. We proposed to amend § 173.27(d) by requiring that all friction and screw type closures must be secured by a secondary means. A Packing Group I liquid would also be required to be further packaged in a rigid, leakproof receptacle or intermediate packaging containing sufficient absorbent material to absorb the entire contents of the inner packaging. We also proposed that, for liquids assigned to Packing Groups II or III, a leakproof liner or bag may be used to satisfy the secondary closure requirement where it could not be applied or it would be impracticable to apply. Additionally, we noted:

- A liner or secondary means of positive closure should not affect an existing UN standard packaging design because it would not ordinarily be considered a new design type.
- Liners typically must be manually inserted into a packaging before filling. Because most packaging systems can be automated or are already automated with some form of secondary closure being applied, costs and regulatory burden to shippers should be minimal.
- The HMR and ICAO Technical Instructions already require a leakproof receptacle for most Packing Group I liquids through special provisions and packing instructions,

respectively.

Lastly, because organic peroxide liquids are no longer required to be packaged with absorbent material under the newly reformatted packing instructions of the ICAO Technical Instructions, we proposed to remove the reference to Division 5.2 materials from the § 173.27(e) introductory text.

2. Testing Requirements to Simulate Packages in the Air Transport Environment.

In the May 14, 2010 [75 FR 27273] NPRM, we also proposed to establish new testing standards for packaging, relative to pressure differential requirements in §§ 173.27(c) and 178.605. Some of the recommended test methods proposed were intended to provide an equivalent alternative to current HMR test requirements, and ultimately reduce the overall failure rate of packages by ensuring packaging capable of withstanding the pressure differentials and vibrations encountered in air transport.

Current HMR test requirements for air transport packaging are based on a 50-year old regulatory regime. Compared to the air transportation environment 50 years ago, today's air cargo transportation environment has become more automated, relies on a more complex cargo feeder system, and utilizes aircraft traveling longer distances without suitable airports to land in the event of an emergency.

For these reasons, DOT will continue with its comprehensive review of air packaging standards as appropriate. In this review, data will be collected on the pressure differential, vibration, ground handling characteristics, temperature fluctuations, and other environmental characteristics typically experienced by packages in air transport. This data will also be analyzed to describe the cumulative impact that today's operational environment may have on packaging

systems. As a result, DOT will assess whether such review merits further action.

III. Discussion and Resolution of Comments Submitted in Response to NPRM

In response to the NPRM, we received comments from the following:

1. Dangerous Goods Advisory Council (DGAC)
2. Council on Safe Transportation of Hazardous Materials Articles, Inc. (COSTHA)
3. Association of Hazmat Shippers, Inc. (AHS)
4. Laboratory Corporation of America (LabCorp)
5. Saf-T-Pak
6. Air Line Pilots Association, International (ALPA)
7. High Q Testing, LLC
8. Lonnie Jaycox
9. European Chemistry Industry Council (CEFIC)

A. Secondary means of closure.

Three major trade associations (COSTHA, DGAC and AHS) who commented support the amendments proposed in the NPRM primarily due to their alignment with the ICAO Technical Instructions and the minimal economic and regulatory burden placed on their members. The bulk of their membership, however, appears to consist of large companies who most likely already comply with some or all of the proposals made in the NPRM. Additionally, these trade associations request that PHMSA, at the earliest possible date, bring any regulatory differences to the international standards bodies' attention to ensure a level playing field exists among domestic and international shippers and carriers. We will continue to propose international alignment with the HMR to the ICAO Dangerous Goods Panel when appropriate.

COSTHA, DGAC and AHS request that PHMSA consider automated closure systems as an acceptable alternative to applying a secondary means of closure to an inner packaging with a screw-type closure. In their comments, they assert because modern automated closure systems

provide a consistent level of integrity, the time it takes to individually apply another means of closure (e.g., tape) is not economically viable when compared to simply using some form of secondary containment such as a leakproof liner. LabCorp also opposes the secondary means of closure requirement as it would be manually accomplished—a major burden. LabCorp and the two DOT-approved testing laboratories (High Q Testing, LLC and Lonnie Jaycox) request that PHMSA allow the use of a leakproof liner to satisfy the “impractical” secondary means of closure requirement proposed in the NPRM.

In response to comments submitted by LabCorp and the two DOT-approved testing laboratories (High Q Testing, LLC and Lonnie Jaycox), in the final rule, we are doing so and providing that for liquids of Packing Groups II and III, the use of a leakproof liner, bag or other form of secondary containment will satisfy the secondary means of closure requirement. However, Packing Group I liquids on passenger-carrying and cargo-carrying aircraft must be contained in an inner packaging with a secondary means of closure applied that is further packaged in a rigid leakproof receptacle or intermediate packaging containing sufficient absorbent material to absorb the entire contents of the inner packaging before being placed in its outer package. This requirement is consistent with current air-related § 172.102 Special provisions in the HMR (A3, A6), and Packing Instructions 360 and 361 in the ICAO Technical Instructions. Unless otherwise specified through a § 172.102 Special provision, absorbent material is not required for liquids of Packing Groups II and III. It should be noted, however, that although not required under these provisions, absorbent material would remain a requirement if included as part of an assembled package during design testing and is also permitted as an additional mitigation procedure if desired.

We accept the suggestions to “improve” upon the proposed amendments in the NPRM by allowing certain closures of high integrity (e.g., acid cap) to meet the secondary means of closure requirements of this final rule. The methods indicated in proposed § 173.27(d) are some examples of ways in which to satisfy the closure requirements and are not intended to be all-inclusive. We do not accept, however, the recommendations that successful pressure differential testing itself should satisfy the secondary means of closure or liner requirement. Some commenters state it would not be needed (and is overly redundant) if a packaging successfully meets the performance standard for pressure differential capability as proposed in the NPRM. We disagree and contend that the air transport environment is unique in that a certain amount of redundancy is necessary to maintain or enhance the safe transportation of hazardous materials.

B. Pressure Differential Testing.

PHMSA received comments on the pressure differential testing aspects of the NPRM from Saf-T-Pak, AHS, and CEFIC. Saf-T-Pak supports the proposals in the NPRM to require pressure differential testing and requests that PHMSA: (1) allow any acceptable test method that achieves the proposed goal of the rule; (2) require similar testing requirements for biological substances in § 173.199 as proposed in § 173.27; and (3) lower the duration for flexible packagings used primarily in medical and pharmaceutical industries. AHS requests that PHMSA allow reduced pressure differential capability (75 kPa) for all consumer commodities in the ORM-D-AIR hazard class. CEFIC represents national chemical federations and chemical companies in Europe. In its comments, CEFIC states that it supports global harmonization of hazardous materials transport standards and regulations, but actual testing of packagings to verify pressure differential capability as proposed in the NPRM is inconsistent with the ICAO

Technical Instructions. As a result, PHMSA has elected to not adopt the pressure differential proposals published in the NPRM at this time. DOT will continue to assess the pressure differential and vibration test proposals published in the NPRM in a broader context once additional data has been collected and considered.

C. Conclusion.

In this rulemaking action, PHMSA is adopting, consistent with packaging amendments made to the 2011-2012 edition of the ICAO Technical Instructions, the requirement that closures of inner packagings be secured by a secondary means of closure. The effective date of the amendments adopted in this final rule is July 1, 2012. This delayed compliance date will assist shippers in assessing their packaging stock for integrity and is consistent with amendments recently adopted under Docket HM-215K (76 FR 3308, January 19, 2011) that align the HMR with certain amendments adopted in the 2011-2012 ICAO Technical Instructions.

This final rule adopts the requirements that friction and screw type closures (i.e., all closures) of inner packagings intended to contain liquids, as part of a combination packaging, must be secured by a secondary means of closure. For liquids assigned to Packing Groups II or III, a leakproof liner may be used to satisfy the secondary closure requirement where it cannot be applied or it is impracticable to apply. For liquids of Packing Group I, a secondary means of closure, absorbent material, and a rigid and leakproof receptacle or intermediate packaging is required. We believe the amendments adopted in this final rule will achieve our objective of prescribing a cost-effective systems approach to aviation safety that provides redundancy where necessary and promotes compliance.

PHMSA and FAA will continue to focus on enforcement of the current air packaging

requirements. We will also build on our efforts to better understand and characterize the environmental conditions that packages are subjected to in today's air transport system.

IV. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for This Rulemaking.

This final rule is published under authority of Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 et seq.) Section 5103(b) of Federal hazmat law requires the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce.

B. Executive Orders 12866 and 13563 and DOT Regulatory Policies and Procedures.

This notice is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This notice is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). Additionally, E.O. 13563 supplements and reaffirms E.O. 12866, stressing that, to the extent permitted by law, an agency rulemaking action must be based on benefits that justify its costs, impose the least burden, consider cumulative burdens, maximize benefits, use performance objectives, and assess available alternatives.

During the rulemaking process, PHMSA, in consultation with the FAA, considered four possible alternatives to strengthen packaging requirements for air shipments of liquid hazardous materials:

Alternative 1: Harmonize with the 2011-2012 edition of the ICAO Technical Instructions by requiring that friction and screw type closures (i.e., all closure types) of inner

packagings intended to contain liquids as part of a combination packaging be secured by a secondary means of closure. Under this alternative, we would adopt packaging amendments included in the 2011-2012 edition of the ICAO Technical Instructions that require friction and screw type closures of inner packagings intended to contain liquids as part of a combination packaging to be secured by a secondary means of closure. For liquids assigned to Packing Groups II or III, a leakproof liner could be used to satisfy the secondary closure requirement where it could not be applied or would be impracticable to apply. For liquids of Packing Group I, a secondary means of closure, absorbent material and a rigid leakproof receptacle or intermediate packaging would be required. Alternative 1 would address most of the safety issues associated with the transportation of liquid hazardous materials by preventing releases or containing releases that do occur within the packaging. It does not address problems associated with the current pressure differential capability standard.

Alternative 2: Require enhanced pressure differential capability requirements on all inner packagings intended to contain liquids as part of a combination packaging. Current rules require that all packages transported by air and for which retention of liquids is a basic function must be capable of withstanding, without leakage, a certain pressure differential, which is usually 95 kilopascals (kPa) (§173.27[c]). This integrity standard applies to both specification and non-specification packaging. Under this alternative, PHMSA would require packaging manufacturers to conduct testing to confirm that a combination packaging intended for the air transportation of liquid hazardous materials is capable of withstanding the pressures encountered on board aircraft and to maintain a documented record of the test results.

Alternative 3: Adopt the provisions in both Alternatives 1 and 2. Under this alternative,

PHMSA would adopt the new and revised regulatory provisions summarized in the discussion of Alternatives 1 and 2 above.

Alternative 4: Do nothing. Under this alternative, the current domestic regulatory scheme applicable to air shipment of hazardous liquids would continue in place and the U.S. standards would not be harmonized with the international community. Because most countries and international air carrier organizations have already adopted the changes in this rulemaking, a do-nothing approach could result in complications in the movement of these materials and the U.S. will not meet its obligations outlined in the Convention on International Civil Aviation – also known as the Chicago Convention. Future inconsistencies with international transport standards may result in foreign authorities refusing to accept hazardous material shipments prepared in accordance with the HMR. To successfully participate in international markets, U.S. companies would be required to conform to dual regulations. Inconsistent domestic and international regulations can also have an adverse safety impact by making it more difficult for shippers and carriers to understand and comply with all applicable requirements.

C. Executive Order 13132.

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (“Federalism”). This final rule preempts State, local and Indian tribe requirements but does not propose any regulation with substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, 49 U.S.C. 5101-5127, contains an

express preemption provision (49 U.S.C. 5125(b)) preempting State, local and Indian tribe requirements on the following subjects:

- (1) The designation, description, and classification of hazardous materials;
- (2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
- (3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;
- (4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or
- (5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (2) and (5) described above and preempts State, local, and Indian tribe requirements not meeting the “substantively the same” standard.

Federal hazardous materials transportation law provides at 49 U.S.C. 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the Federal Register the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption of this final rule will be 90 days from publication in the Federal Register.

D. Executive Order 13175.

This final rule has been analyzed in accordance with the principles and criteria contained

in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”). Because this final rule does not have tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies.

The Regulatory Flexibility Act (5 U.S.C. 601-611) requires each agency to analyze proposed regulations and assess their impact on small businesses and other small entities to determine whether the proposed rule is expected to have a significant impact on a substantial number of small entities. A regulatory evaluation for this final rule, which includes a detailed small business impact analysis, is in the public docket for this rulemaking. Based on the analysis in the public docket, I certify that the requirements adopted in this final rule will not have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”) and DOT’s procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure potential impacts of draft rules on small entities are properly considered.

F. Unfunded Mandates Reform Act of 1995.

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of \$141.3 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act.

Under the Paperwork Reduction Act of 1995, no person is required to respond to an

information collection unless it has been approved by OMB and displays a valid OMB control number. Section 1320.8(d), title 5, Code of Federal Regulations requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests. This final rule does not identify a new or revised information collection request that PHMSA will be required to submit to OMB for approval.

H. Environmental Assessment.

The National Environmental Policy Act (NEPA), §§ 4321-4375, requires Federal Agencies to analyze regulatory actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations require Federal Agencies to conduct an environmental review considering (1) the need for the action, (2) alternatives to the action, (3) environmental impacts of the action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR § 1508.9(b).

Purpose and Need. As discussed elsewhere in this preamble, PHMSA is amending requirements in the Hazardous Materials Regulations to enhance the integrity of inner packagings or receptacles of combination packagings containing liquid hazardous material by ensuring they remain intact when subjected to the reduced pressure and other forces encountered in air transportation. In order to substantially decrease the likelihood of an unintentional hazardous materials release to the environment, the amendments adopted in this final rule require that closures of inner packagings be secured by a secondary means of closure.

Alternatives: PHMSA considered four possible alternatives to strengthen packaging requirements for air shipments of liquid hazardous materials:

Alternative 1: Require that friction and screw type closures of inner packagings intended

to contain liquids as part of a combination packaging to be secured by a secondary means of closure. Under this alternative, we would adopt the packaging amendments included in the 2011-2012 edition of the ICAO Technical Instructions. Specifically, we would require friction and screw type closures of inner packagings intended to contain liquids as part of a combination packaging to be secured by a secondary means of closure. For liquids assigned to Packing Groups II or III, a leakproof liner could be used to satisfy the secondary closure requirement where it could not be applied or would be impracticable to apply. For liquids of Packing Group I, a secondary means of closure, absorbent material, and a rigid and leakproof receptacle or intermediate packaging would be required. This regulatory alternative was selected. This alternative harmonizes domestic packaging requirements with international standards, thereby reducing confusion, promoting safety, and facilitating efficient transportation.

Alternative 2: Require enhanced pressure differential capability requirements on all inner packagings intended to contain liquids as part of a combination packaging. Current rules require that all packages transported by air and for which retention of liquids is a basic function must be capable of withstanding, without leakage, a certain pressure differential, which is usually 95 kilopascals (kPa) (§173.27[c]). This integrity standard applies to both specification and non-specification packaging. Under this alternative, PHMSA would require packaging manufacturers to conduct testing to confirm that a combination packaging intended for the air transportation of liquid hazardous materials is capable of withstanding the pressures encountered on board aircraft and to maintain a documented record of the test results.

Alternative 3: Adopt the provisions in both Alternatives 1 and 2. Under this alternative, PHMSA would adopt the new and revised regulatory provisions summarized in the discussion of

Alternatives 1 and 2 above.

Alternative 4: Do nothing. Under this alternative, the current regulatory scheme applicable to air shipment of hazardous liquids would continue in place. We did not select this alternative because clearly-identified safety risks would not be addressed.

Analysis of Environmental Impacts. Hazardous materials are substances that may pose a threat to public safety or the environment during transportation because of their physical, chemical, or nuclear properties. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety hazard and reducing the probability and quantity of a hazardous material release. Releases of hazardous materials can result in explosions or fires, while radioactive, toxic, infectious, or corrosive hazardous materials can have short- or long-term exposure effects on humans or the environment.

We have reviewed the risks associated with transporting combination packages containing liquid hazardous materials by aircraft and by surface transportation to and from aircraft. The amount of liquid hazardous material contained in air-eligible combination packages to which this rulemaking applies is minimal and ranges anywhere from 0.5L to 450L. However, hazardous materials that pose the highest risk to humans and the environment are packaged in much smaller quantities when transported by aircraft, or are not authorized transportation by aircraft at all, thereby minimizing any consequences to both should a package fail and release its contents. For these reasons, we conclude the amendments adopted in this final rule will result in little or no impact on the environment.

I. Privacy Act.

Anyone is able to search the electronic form for all comments received into any of our

dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477-78) or you may visit "<http://dms.dot.gov>".

J. Regulation Identifier Number (RIN).

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects in 49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

In consideration of the foregoing, 49 CFR Chapter I is amended as follows:

**PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND
PACKAGINGS**

1. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101-5128, 44701; 49 CFR 1.45, 1.53.

2. In § 173.27, paragraphs (a), (d), and (e) are revised to read as follows:

§ 173.27 General requirements for transportation by aircraft.

(a) The requirements of this section are in addition to requirements prescribed elsewhere under this part and apply to packages offered or intended for transportation aboard aircraft. Except for materials not subject to performance packaging requirements in subpart E of this part, a

packaging containing a Packing Group III material with a primary or subsidiary risk of Division 4.1, 4.2, 4.3, 5.1, or Class 8 must meet the Packing Group II performance level when offered for transportation by aircraft.

* * * * *

(d) Closures. The body and closure of any packaging must be constructed to be able to adequately resist the effects of temperature and vibration occurring in conditions normally incident to air transportation. Inner packaging or receptacle closures of combination packages containing liquids must be held securely, tightly and effectively in place by secondary means. Examples of such secondary methods include: adhesive tape, friction sleeves, welding or soldering, locking wires, locking rings, induction heat seals, and child-resistant closures. The closure device must be designed so that it is unlikely that it can be incorrectly or incompletely closed. Closures must be as follows:

(1) Packing Group I. An inner packaging containing liquids of Packing Group I must have a secondary means of closure applied and packed in accordance with paragraph (e) of this section.

(2) Packing Groups II and III. When a secondary means of closure cannot be applied or is impracticable to apply to an inner packaging containing liquids of Packing Groups II and III, this requirement may be satisfied by securely closing the inner packaging and placing it in a leakproof liner or bag before placing the inner packaging in its outer packaging.

(e) Absorbent materials. Except as otherwise provided in this subchapter, Packing Group I liquid hazardous materials of Classes 3, 4, or 8, or Divisions 5.1 or 6.1 that are packaged in combination packagings and offered for air transport in glass, earthenware, plastic, or metal inner

packagings must be packed using absorbent material as follows:

(1) Inner packagings must be packed in a rigid and leakproof receptacle or intermediate packaging containing sufficient absorbent material to absorb the entire contents of the inner packaging before packing the inner packaging in its outer package.

(2) Absorbent material must not react dangerously with the liquid (see §§173.24 and 173.24a.).

* * * * *

Issued in Washington, DC on April 10, 2012 under authority delegated in 49 CFR part 1.

Cynthia L. Quarterman
Administrator

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